#### Pest Update (April 28, 2010)

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#### Available on the net at:

http://sdda.sd.gov/Forestry/Educational-Information/PestAlert-Archives.aspx

Any treatment recommendations, including those identifying specific pesticides, are for the convenience of the reader. Pesticides mentioned in this publication are generally those that are most commonly available to the public in South Dakota and the inclusion of a product shall not be taken as an endorsement or the exclusion a criticism regarding effectiveness. Please read and follow all label instructions and the label is the final authority for a product's use on a particular pest or plant. Products requiring a commercial pesticide license are occasionally mentioned if there are limited options available. These products will be identified as such but it is the reader's responsibility to determine if they can legally apply any product identified in this publication.

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#### Plant development for the growing season

We are still ahead of last year as well as many past years, it plant development. The crabapples are in full bloom in Brookings, a week or two ahead of schedule. Everyone will need to rush to begin or complete some of the most critical cover sprays for diseases such as apple scab

before the opportunity passes.

#### Treatments to do now



**Apple scab –** The **second** spray of Captan, a commonly available fungicide, should be applied now as hopefully the first treatment was applied about 7 to 10 days ago. Treatments will continue on a seven to ten-day interval until the weather begins to dry, usually mid-June. These first sprays are the most critical, miss them and the rest will not matter!



Clearwing ash borer treatments with a permethrin product can be applied next week. These chemicals are applied as trunk sprays along the lower 10 feet of the trunk and should not be applied as soil drenches. The borers are pupae right now, as seen in this picture but will soon become adults and emerge from the tree. The adults are usually out flying about a week or so after spirea begins to bloom. This often is

the first week of May but may be more towards the end of May this year.



Tent caterpillars egg masses are beginning to hatch in eastern South Dakota. While is it still possible to prune out the infestations since the nests are so small and the caterpillars have not migrated out yet. However within the next few days these "worms" will begin to move out and feed on the expanding foliage of cherries, apples and other preferred host. Once the insect begins to feed the treatment options become spraying and this is best accomplished

while the insects are small. The most common available insecticides for controlling this insect are ones that contain carbaryl or malathion as the active ingredient. Carbaryl is commonly sold as Sevin while malathion is sold as Malathion. Remember spaying any fruit tree during flowering will have the undesired affect of also killing any bees that are pollinating the flowers so avoid this time period.

**Spruce spider mites** become active now as silver maple leaves are expanding. Spruce spider mites are cool season mites meaning they are active in the spring and fall, not during the summer heat. The mites will go dormant once the temperatures consistently reach into the mid 80's. While the mites will begin

feeding soon, the damage to the needles, bronzing and browning, does not typically show up until summer just as the mite populations begin to decline. Treatment options are very limited for homeowners, horticultural oils and insecticidal soaps being the two most common. These are really suppression treatments, not eradication, and the webbing often prevents these pesticides, particularly the soap, from penetrating. They should be applied now and then another treatment next week, about 7 to 10 days after the first treatment to kill the mites as they hatch from eggs. Be aware of the cautions to the use of these products, particularly for spruce, as applications of oils or soaps can result in the loss of blue or silvery color to the foliage. You can make a blue spruce, a green spruce, very quickly, so read and follow label directions very carefully. The other common spray has the active ingredient acephate but this kills more than mites and sometimes has limited effectiveness. Insecticides containing this active ingredient are also becoming difficult to find in our state, Ortho Systemic Insect Killer is the most common and only a few distributors in the state still have this product on their shelves. Acephate should also be applied in two treatments spaced 10 days apart.

There are a number of products that provide excellent control and have minimal impact on non-target organisms but these are only commercially available. However, it would be worth the time and money to have a commercial applicator provide these treatments considering the effectiveness of these products versus those available to homeowners. This is one pest it is far better to pay for a professional than attempt to do it yourself.

#### Samples received

# Brule County One side of this spruce is browning and the other side is totally brown and dying. What can be done for this spruce tree?

This is a bad case of winterkill to the needles. The brown needles had a much defined line between living and dead tissue. The buds on the branches are still alive and the branches themselves are still healthy – just the foliage was affected. The trees may produce new foliage this spring but considering the loss of the mature needles I doubt the tree will be worth saving and probably should be removed. Fortunately this is not a problem that will spread to any remaining spruce.

### Davison County Enclosed are some branches from a sick pine. What might be the problem?

The trees are infected with dothistroma needle blight. The symptom most likely began appearing last summer or fall though by now the discolored foliage is very noticeable. The symptoms start with yellow and tan spots that become bands around the needle bordered with a yellow halo. Usually by spring the halo has darkened, along with the band, and most of the needle has dies though the very base is often still green. The disease is difficult to identify as the symptoms

are similar to a number of other stressor but in the spring small black fruiting structures will erupt from the tissue and this is what I was able to find on these needles (after a little coxing in a humidity chamber). The twigs and even buds on the samples were still alive and healthy since dothistroma is a needle disease, unlike the other common disease diplodia that infects the tips. Control is a copper fungicide applied as the new growth expands – now – and repeated in late June and mid-July.

# Harding County Enclosed are some pine samples. Some bug has been eating the tips.

This is the metallic pine pitch nodule maker (*Retinia metallica*). This insect burrows into the buds in the summer as a larva and overwinters there before emerging as an adult in late May or early June. The burrowing by the larvae results in stunted tips. The larvae are about 3/8-inch long and creamy and I was able to find several in the branch tips provided as a sample. Unfortunately there are no pesticides registered for control of this insect. However, I rarely see these insect cause problems year after year on a tree so apparently natural controls are enough to frequently stop a problem.

### Kingsbury County What might be the problem with this spruce?

The sample was covered with mites and spruce needleminer. . I would apply a high-pressure stream of water to dislodge the needleminers and the mites (for more mite control, see the above section on pests to treat). This will probably also dislodge a lot of needles so expect the tree to look a little thin. There was no pine in the sample though one was mentioned in the letter.

### Lake County This is a dying apple tree with the bark falling off the tree.

This appears to be black rot, a disease of apples in our state that results in rough or cracked bark that often begins to fall away. The best control is to prune out any infected branches, though once in the trunk there is not much that can be done. The pictures were not very clear and the sample was not enough to confirm so I'll contact Tim and try to swing by to see the tree.

# Lyman County This is a declining pine. What might be the problem?

This is a tough one. You mentioned none of the other pines are declining and this particular one is clearly stressed and has been for some time. There were no signs of any pathogen on the sample. I suspect there is something soil related regarding this tree – sounds like a stop on my way to the Black Hills in May.

### McPherson County These pines have lots of brown needles,

The two ponderosa pine tree samples (sample #1 and #2) both show dothistroma needle blight. Please read under the Davison sample for more

information on this disease. The Scotch pine (sample #3) is looking rather thin, long gaps between whorls of needles, due to excessive cone production. This is a common reaction to stress and any Scotch pine trying to grow in McPherson is stressed!